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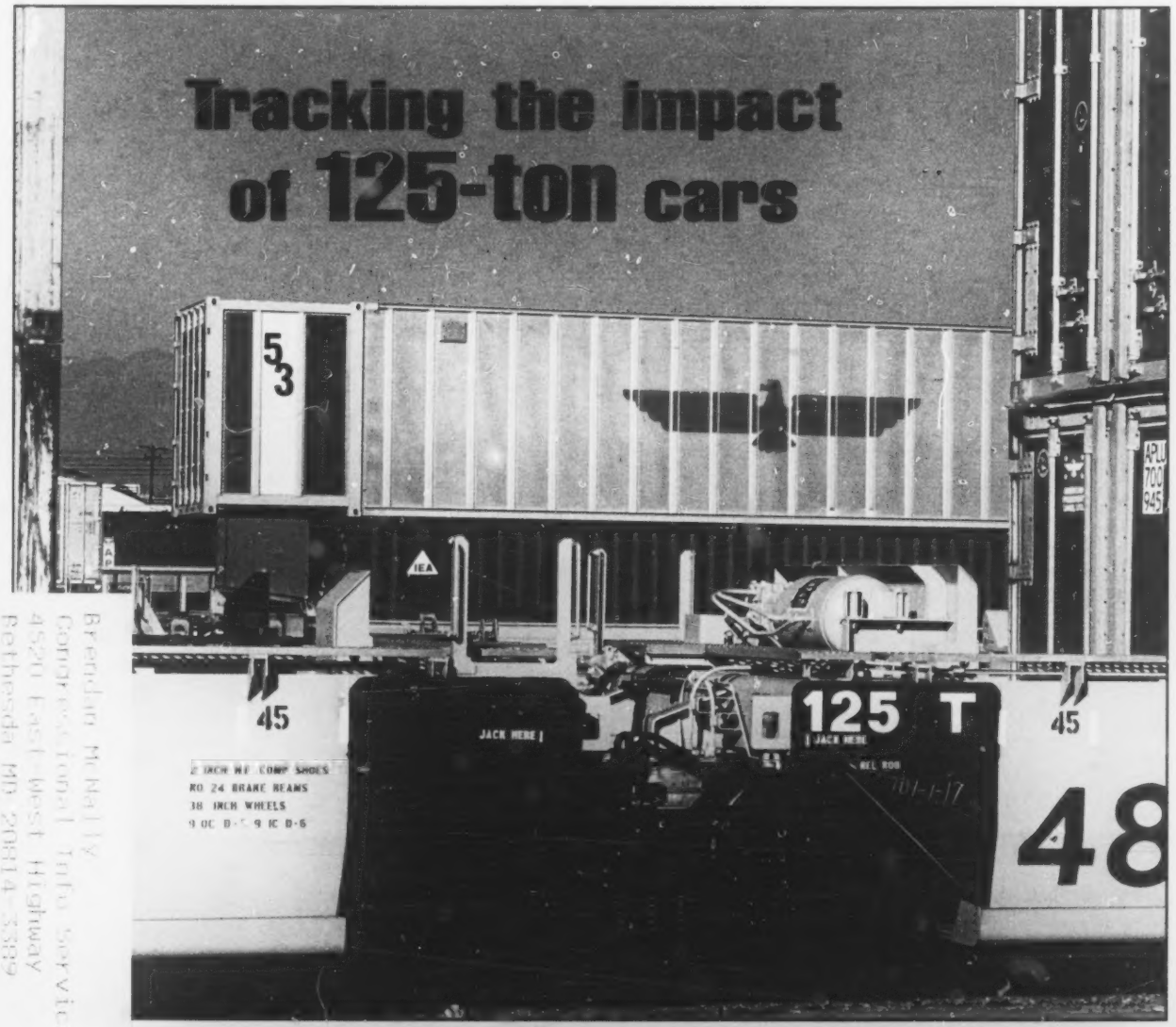
March 1989

Railway Age

...for the new age of railways and rail transit



Tracking the impact of 125-ton cars

The new locomotives: Macro benefits from microprocessors

BART boosts ridership with savvy marketing

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4529 Linden Hill Road
Bethesda, MD 20814-2189

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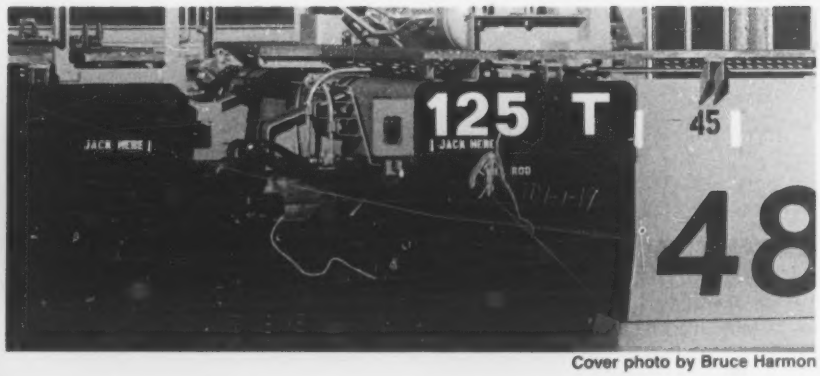
Features



Cover photo by Bruce Harmon

45 How BART won riders back

After a whopping fare increase, Bay Area Rapid Transit ridership slumped. A savvy marketing campaign, featuring comic Henny Youngman, has helped reverse the downtrend.

49 Amtrak adopts standard radios

Train crews who used a variety of communications equipment when employed by individual railroads now have 48-channel radios (a total of 1,200) supplied by GE.

25 Tracking the impact of 125-ton cars

The occasional heavy car (in a stack train, for example) is one thing—but solid trains of them, pounding the same track day after day, could present problems.

33 Track tester takes shape

The Track Loading Vehicle, developed at the Chicago Technical Center and soon to be checked out at Pueblo, could be one of the most important research tools in the m/w kit.

35 Macro benefits from microprocessors

Onboard computers give new generation locomotives great diagnostic and archival capability. Learning to use this mass of data effectively is the next step.

41 ATCS advances in Canada

An intermediate (Level 20) system will be installed by Canadian National in B.C. What distinguishes the CN approach from some others is that it's "spec-compliant."

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Published monthly by the Simmons-Boardman Publishing Corporation, 345 Hudson St., New York, NY 10014 USPS 449-131. Vol 190, No. 3

Subscriptions: RAILWAY AGE is sent without obligation to all Class I railroads, regional and short line railroad, light and rapid rail transit, private car lines, industrial owners of rolling stock, utility and energy personnel in railroad management and supervision in the executive and administration departments, marketing and sales departments, purchasing and materials departments, operations, mechanical, engineering and communications and signaling departments in the United States, Canada and Mexico. Subscriptions should be requested on company letterhead. Subscription price to others: $4.00 per copy, $35.00 per year in the U.S., Canada and Mexico. Foreign $50.00 (U.S. funds). All subscriptions payable in advance. Copyrighted © 1989. Second-class postage paid at New York, N.Y. and additional mailing offices.

Address all subscriptions, change of address forms and correspondence concerning them to Subscription Dept., Railway Age, 345 Hudson St., New York, NY 10014

Printed at Hughes Printing Co., 34 North Crystal St., East Stroudsburg, PA 18301. Second Class postage paid by Simmons-Boardman Publishing Corp., 345 Hudson St., New York, N.Y. 10014 ISSN 0033-8826.

POSTMASTER—Send change of address forms to Simmons-Boardman, 345 Hudson St., New York, NY 10014.

MARKET OUTLOOK

Equipment

Chicago & North Western: Ordered 30 DASH 8-4DC diesel-electric locomotives from General Electric at a cost of about $40 million. The units, to be used in Wyoming coal service, are scheduled for third quarter delivery.

Facilities

Canadian National: Will invest $2.1 million to upgrade its locomotive test facility at Transcona Shops, Winnipeg, as part of a modernization of the shop complex that will cost about $5 million in 1989. All overhaul and subsequent test activity involving CN locomotives built by General Motors has been consolidated at Transcona, resulting in a greater volume of work. CN's existing load test building will be extended to accommodate longer, new-generation locomotives and a track will be added to handle the increased number of units to be tested.

Chicago Transit Authority: Power Energy Industries (PEI) of Carson, Calif., will supply rectifiers and rectifier transformers for 15 traction power substations that will be used on the CTA's new Southwest Line. The $2.2 million contract was awarded to PEI by principal contractor ABB Traction Inc. of Lawrenceville, N.J.

Egyptian State Railways: Awarded a $6.4 million add-on contract to Aydin Corp., which is completing a telecommunications network for train traffic control. The add-on work, which will be performed at Aydin Corp. (West) in San Jose, Calif., consists of expanding certain links of the network and increasing the capacity of certain telephone lines.

Metro-North: Awarded a contract to DSL Dynamic Sciences Limited for the design, supply, and installation of three locomotive simulators. DSL President Dr. John Wilson said completion of this order will bring the total number of DSL simulators in service to ten.

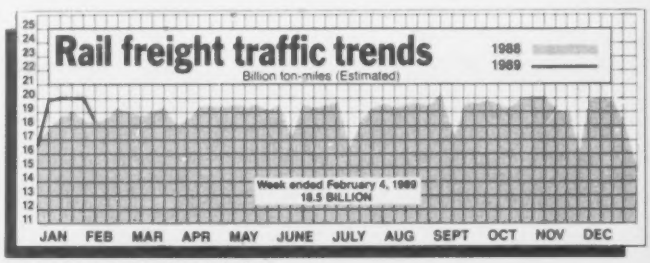
Norfolk Southern: Acquired two new mainframe computers for its Atlanta computer center, an IBM 3090-400S and an Amdahl 5990-700, at a cost of $17 million. The new computers increase NS's central data processing capacity by 120%.

Revenue freight carloadings

Commodity	Feb. 4 week	Jan. 28 week	Jan. 21 week	Jan. 14 week	Jan. 7 week
Grain	30,746	32,273	31,644	31,646	25,032
Other farm products	2,380	2,608	2,439	2,404	2,202
Metallic ores	12,511	14,242	8,582	16,337	20,087
Coal	111,416	125,338	121,385	126,530	104,028
Crushed stone, gravel and sand	11,255	12,016	11,797	11,863	9,749
Nonmetallic minerals	8,558	8,340	8,807	10,167	8,750
Grain mill products	10,243	10,546	10,578	10,546	9,360
Food and kindred products	8,741	9,333	8,885	9,346	7,818
Primary forest products	9,487	10,100	8,938	9,625	8,669
Lumber and wood products except furniture	6,978	7,401	6,820	6,626	5,294
Pulp, paper and allied products	11,045	10,809	9,607	10,755	11,261
Chemicals and allied products	29,220	28,554	28,008	29,635	25,144
Petroleum products	4,891	5,121	4,903	5,471	4,375
Stone, clay and glass products	9,306	9,887	9,109	8,977	8,081
Coke	5,770	5,612	5,651	6,026	5,693
Metals and products	10,426	10,595	8,839	9,937	8,411
Motor vehicles and equipment	21,367	21,512	21,676	21,368	14,208
Waste and scrap materials	8,973	9,289	8,860	9,405	6,757
Forwarder and shipper assn. traffic	9	13	11	10	6
All other carloads	6,836	7,613	6,414	7,125	5,490
Total Cars Loaded	**320,158**	**341,202**	**322,953**	**343,799**	**290,415**
% change from previous year	(0.8)	2.3	7.1	6.0	(4.4)
					% change
Cumulative total: 5 weeks		1,637,454			1.2
Estimated revenue ton-miles (billions)	18.5	20.0	20.0	19.9	16.6
% change from previous year	(.5)	4.2	3.6	6.4	(5.1)
Total:		**1989**	**1988**		**% change**
5 weeks		95.0	93.4		1.7

Intermodal traffic

	Feb. 4	Jan. 28	Jan. 21	Jan. 14	Jan. 7
Trailers	68,308	68,805	65,791	63,997	52,454
Containers	45,279	45,559	46,388	45,159	34,548
Total	**113,587**	**114,364**	**112,179**	**109,156**	**87,002**
% change from previous year	1.0	1.7	2.4	3.1	(7.1)
					% change
Cumulative total: 5 weeks			536,288		.4


Rail freight traffic trends
Billion ton-miles (Estimated)
1988
1989
Week ended February 4, 1989
18.5 BILLION
JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

Source: Association of American Railroads

Freight cars

	DELIVERED 4th quarter 1988	DELIVERED 4th quarter 1987	ORDERED 4th quarter 1988	ORDERED 4th quarter 1987	ON ORDER AND UNDELIVERED Jan. 1 1989	ON ORDER AND UNDELIVERED Jan. 1 1988
Built new by carbuilders	7,864	3,912	8,044	5,913	15,953	6,736
Built new in RR shops	0	0	0	0	0	0
Built new—Total	7,864	3,912	8,044	5,913	15,953	6,736
Rebuilt	143	27	0	207	18	0
TOTAL	**8,007**	**3,939**	**8,044**	**6,120**	**15,971**	**6,736**
Locomotives (new and rebuilt)	267	75	N/A	N/A	256	35

Source: Transportation Div., AAR and American Railway Car Institute